

Various changes may be made in these example embodiments and inventive concepts may be accomplished in various embodiments. Thus, example embodiments are illustrated in the drawings and described in detail herein. However, inventive concepts are not limited to these example embodiments, and these example embodiments should be understood as covering all modifications, equivalents, and alternatives falling within the scope of inventive concepts. In the drawings, the same reference numerals are assigned to the same or corresponding elements.

**[0052]** In the present disclosure, it will be understood that the terms ‘comprise’ and/or ‘may comprise,’ are used to indicate a function, an operation, or an element and thus at least one additional function, operation, element, or the like is not limited by the terms. It will be further understood that the terms ‘comprise’ and/or ‘comprising,’ specify the presence of stated features, integers, steps, operations, elements, and/or components, but do not preclude the presence or addition of one or more other features, integers, steps, operations, elements, components, and/or groups thereof.

**[0053]** It will be understood that although the terms ‘first’, ‘second’, etc. may be used herein to describe various components, these components should not be limited by these terms. These components are only used to distinguish one component from another.

**[0054]** The term ‘and/or’ includes any and all combinations of one or more of the associated listed items. For example, ‘A and/or B’ should be understood to mean A, B, or both of A and B.

**[0055]** It will be understood that, although the terms ‘first’, ‘second’, ‘third’, etc., may be used herein to describe various elements, components, regions, layers and/or sections, these elements, components, regions, layers and/or sections should not be limited by these terms. For example, an order and/or importance of elements are not limited by these terms. These terms are only used to distinguish one element, component, region, layer or section from another region, layer or section. For example, a first user device and a second user device are merely user devices and should be understood to represent different user devices. Thus, a first element, component, region, layer or section discussed below could be termed a second element, component, region, layer or section without departing from the teachings of inventive concepts.

**[0056]** It will be understood that when an element or layer is referred to as being ‘coupled to’ or ‘connected to’ another element or layer, the element or layer can be directly coupled or connected to another element or layer or intervening elements or layers may be present there between. In contrast, when an element or layer is referred to as being ‘directly coupled to’ or ‘directly connected to’ another element or layer, there are no intervening elements or layers present.

**[0057]** The terminology used herein is for the purpose of describing particular embodiments only and is not intended to be limiting of various example embodiments. As used herein, the singular forms ‘a’, ‘an’ and ‘the’ are intended to include the plural forms as well, unless the context clearly indicates otherwise.

**[0058]** Unless otherwise defined, all terms (including technical and scientific terms) used herein have the same meaning as commonly understood by one of ordinary skill in the art to which inventive concepts belong. It will be further understood that terms, such as those defined in commonly used dictionaries, should be interpreted as having a meaning

that is consistent with their meaning in the context of the relevant art and will not be interpreted in an idealized or overly formal sense unless expressly so defined herein.

**[0059]** Example embodiments may be described with reference to acts and symbolic representations of operations (e.g., in the form of flow charts, flow diagrams, data flow diagrams, structure diagrams, block diagrams, etc.) that may be implemented in conjunction with units and/or devices (e.g., image generator, packer, display controller, etc., as described herein) discussed in more detail below. Although discussed in a particularly manner, a function or operation specified in a specific block may be performed differently from the flow specified in a flowchart, flow diagram, etc. For example, functions or operations illustrated as being performed serially in two consecutive blocks may actually be performed simultaneously, or in some cases be performed in reverse order.

**[0060]** Units and/or devices (e.g., image generator, packer, display controller, etc., as described herein) according to one or more example embodiments may be implemented using hardware, software, and/or a combination thereof. For example, hardware devices may be implemented using processing circuitry such as, but not limited to, a processor, an application processor, Central Processing Unit (CPU), a controller, an arithmetic logic unit (ALU), a digital signal processor, a microcomputer, a field programmable gate array (FPGA), a System-on-Chip (SoC), a programmable logic unit, a microprocessor, or any other device capable of responding to and executing instructions in a defined manner.

**[0061]** Software may include a computer program, program code, instructions, or some combination thereof, for independently or collectively instructing or configuring a hardware device to operate as desired. The computer program and/or program code may include program or computer-readable instructions, software components, software modules, data files, data structures, and/or the like, capable of being implemented by one or more hardware devices, such as one or more of the hardware devices mentioned above. Examples of program code include both machine code produced by a compiler and higher level program code that is executed using an interpreter.

**[0062]** For example, when a hardware device is a computer processing device (e.g., a processor, application processor, Central Processing Unit (CPU), a controller, an arithmetic logic unit (ALU), a digital signal processor, a microcomputer, a microprocessor, etc.), the computer processing device may be configured to carry out program code by performing arithmetical, logical, and input/output operations, according to the program code. Once the program code is loaded into a computer processing device, the computer processing device may be programmed to perform the program code, thereby transforming the computer processing device into a special purpose computer processing device. In a more specific example, when the program code is loaded into a processor, the processor becomes programmed to perform the program code and operations corresponding thereto, thereby transforming the processor into a special purpose processor.

**[0063]** Software and/or data may be embodied permanently or temporarily in any type of machine, component, physical or virtual equipment, or computer storage medium or device, capable of providing instructions or data to, or being interpreted, by, a hardware device. The software also